

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application:

1 1.-47. (Cancelled)

1 48. (New) A method comprising:

2 receiving, by a storage array controller that controls an array of storage devices, a
3 service request from a requestor over a storage network, wherein the service request is a
4 request to perform a data redundancy operation with the array of storage devices that
5 implements RAID (Redundancy Array of Independent Disks) storage of data;

6 determining an amount of credit available on a local storage medium of the
7 storage array controller for the requestor;

8 implementing the service request at the storage array controller in response to the
9 amount of credit being sufficient to execute the service request;

10 in response to the amount of credit being insufficient to execute the service
11 request,

12 transmitting, by the storage array controller, a token request for a service
13 token to a server communicatively connected to the storage network;

14 receiving, by the storage array controller, a response to the token request
15 transmitted by the server after the server validates the token request; and

16 executing the service request at the storage array controller in response to
17 the response to the token request including an indication authorizing execution of the
18 service request.

1 49. (New) The method of claim 48, wherein receiving the service request to perform
2 the data redundancy operation comprises receiving the service request to perform a data
3 snapshot operation at the array of storage devices.

1 50. (New) The method of claim 48, wherein receiving the service request to perform
2 the data redundancy operation comprises receiving the service request to perform a data
3 snapclone operation at the array of storage devices.

1 51. (New) The method of claim 48, wherein receiving the service request to perform
2 the data redundancy operation comprises receiving the service request to perform a data
3 backup service at the array of storage devices.

1 52. (New) The method of claim 48, wherein receiving the service request to perform
2 the data redundancy operation comprises receiving the service request to perform a data
3 recovery operation at the array of storage devices.

1 53. (New) The method of claim 48, wherein receiving the service request to perform
2 the data redundancy operation comprises receiving the service request to perform a data
3 redundancy operation with the array of storage devices that implements RAID 5 storage
4 of data.

1 54. (New) The method of claim 48, wherein transmitting the token request comprises
2 transmitting the token request containing an account identifier that identifies one of plural
3 accounts that the server is to use for validating the token request.

1 55. (New) The method of claim 48, wherein receiving the response to the token
2 request comprises receiving the response that contains an encrypted code that indicates
3 whether the execution of the service request is to be authorized, the method further
4 comprising:

5 the storage array controller decrypting the code.

1 56. (New) The method of claim 48, further comprising updating the amount of credit
2 available in the local storage medium based on information in the response to the token
3 request.

1 57. (New) The method of claim 48, wherein the response to the token request
2 comprises a software module, executable by the storage array controller, for executing
3 the service request.

1 58. (New) The method of claim 57, further comprising the storage array controller
2 invoking the software module to execute the service request.

1 59. (New) A storage array controller comprising:
2 a storage medium to store an amount of credit available for a requestor; and
3 at least one central processing unit (CPU) to:

4 receive, from the requestor, a service request over a storage network,
5 where the service request is a request to perform a data redundancy operation with an
6 array of storage devices that implements RAID (Redundancy Array of Independent
7 Disks) storage of data;

8 determine an amount of credit available on the storage medium for the
9 requestor;

10 implement the service request in response to the amount of credit being
11 sufficient to execute the service request;

12 in response to the amount of credit being insufficient to execute the
13 service request,

14 transmit a token request for a service token to a server
15 communicatively connected to the storage network;

16 receive a response to the token request transmitted by the server
17 after the server validates the token request; and

18 execute the service request in response to the response to the token
19 request including an indication authorizing execution of the service request.

1 60. (New) The storage array controller of claim 59, wherein the service request is to
2 perform a data snapshot operation at the array of storage devices.

- 1 61. (New) A storage array controller of claim 59, wherein the service request is to
2 perform a data backup service at the array of storage devices.

- 1 62. (New) The storage array of claim 59, wherein the service request is to perform a
2 data recovery operation at the array of storage devices.

- 1 63. (New) The storage array controller of claim 59, wherein the service request is to
2 perform the data redundancy operation with the array of storage devices that implements
3 RAID 5 storage of data.

- 1 64. (New) The storage array controller of claim 59, wherein the token request
2 contains an account identifier that identifies one of plural accounts that the server is to
3 use for validating the token request.

- 1 65. (New) The storage array controller of claim 59, wherein the response to the token
2 request contains an encrypted code that indicates whether the execution of the service
3 request is to be authorized, and wherein the at least one CPU is to decrypt the code.

- 1 66. (New) The storage array controller of claim 59, wherein the at least one CPU is to
2 update the amount of credit available in the storage medium based on information in the
3 response to the token request.

- 1 67. (New) A server comprising:
 - 2 a communication interface to communicate over a storage network with a storage
 - 3 array controller that controls an array of storage devices that implements a RAID
 - 4 (Redundancy Array of Independent Disks) storage of data; and
 - 5 at least one central processing unit (CPU) to:
 - 6 receive a token request from the storage array controller, wherein the
 - 7 token request was transmitted by the storage array controller in response to a service
 - 8 request received by the storage array controller if an amount of credit in a local storage
 - 9 medium of the storage array controller is insufficient to execute the service request;
 - 10 validate the token request by using an account identifier in the token
 - 11 request to access one of plural data tables that record information regarding respective
 - 12 service accounts;
 - 13 in response to determining that the accessed data table indicates that there
 - 14 is sufficient credit available for the service request, transmit, to the storage array
 - 15 controller, a response to the token request, where the response contains an indication that
 - 16 the storage array controller is authorized to execute the service request.
- 1 68. (New) The server of claim 67, wherein the response to the token request contains
- 2 an encrypted code for indicating whether execution of the service request is authorized,
- 3 wherein the encrypted code is decryptable by the storage array controller.